

EXHIBIT A

EXHIBIT A**Infringement of U.S. 9,185,291 by the Apple iPhone 7+**

Apple Inc. (“Apple”) infringes Claims 1, 2, 3, 4, 5, 6, 7, 10, 12, and 13 of U.S. Pat. No. 9,185,291 (the “‘291 patent”) by making, using, selling, and/or offering for sale the Apple iPhone 7 Plus (iPhone 7+) mobile device (the “Accused Product”).¹

| Claim | Claim Element | Accused Product |
|--------------|-----------------------------------|--|
| 1.[a] | A zoom digital camera comprising: | <p>To the extent that the preamble is limiting, the Accused Product includes zoom digital camera.</p> <p><i>See, e.g.</i>, Apple iPhone 7+ Specifications, https://support.apple.com/kb/SP744.</p> <p style="text-align: center;">iPhone 7 Plus – Technical Specifications</p> <div style="text-align: right; margin-top: -20px;"> Languages En </div>  |

¹ These Infringement Contentions are preliminary, and they are based on information reasonably available to Corephotonics at this time. By presenting this early disclosure of its infringement contentions pursuant to the Patent Local Rules, Corephotonics does not waive any evidentiary objections or applicable privileges, including work product, with respect to the information disclosed. Corephotonics is not presenting these infringement contentions as a proffer of the facts of infringement, rather only as an exemplary illustration of the theories underlying its infringement contentions in this case. Discovery has only recently opened in this case, Apple has not produced any documents describing the accused functionalities, and Corephotonics’ investigation is ongoing. Corephotonics reserves the right to modify its infringement contentions as the case progresses. Corephotonics further reserves the right to supplement, modify, or seek to amend its infringement contentions consistent with applicable Local Rules and Court Orders.

| Claim | Claim Element | Accused Product |
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| | | <p>Camera</p> <ul style="list-style-type: none"> ▪ 12MP wide-angle and telephoto cameras ▪ Wide-angle: $f/1.8$ aperture ▪ Telephoto: $f/2.8$ aperture ▪ Optical zoom; digital zoom up to 10x ▪ Portrait mode ▪ Optical image stabilization |
| 1.[b] | <p>a) a Wide imaging section that includes a fixed focal length Wide lens with a Wide field of view (FOV), a Wide sensor and a Wide image signal processor (ISP), the Wide imaging section operative to provide Wide image data of an object or scene;</p> | <p>The Accused Product includes a zoom digital camera which includes a wide-angle camera, which Apple has described as being a 28 mm equivalent lens, i.e., with a field of view of approximately 75°.</p> <p><i>See, e.g., Apple iPhone 7+ Specifications, https://support.apple.com/kb/SP744.</i></p> <p>Camera</p> <ul style="list-style-type: none"> ▪ 12MP wide-angle and telephoto cameras ▪ Wide-angle: $f/1.8$ aperture ▪ Telephoto: $f/2.8$ aperture ▪ Optical zoom; digital zoom up to 10x ▪ Portrait mode ▪ Optical image stabilization |

| Claim | Claim Element | Accused Product |
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| | | <p>This wide-angle camera includes a sensor. <i>See, e.g., id.</i>:</p> <p>Camera</p> <ul style="list-style-type: none"> <li data-bbox="741 376 1347 409">▪ 12MP wide-angle and telephoto cameras <li data-bbox="741 421 1163 453">▪ Wide-angle: $f/1.8$ aperture <li data-bbox="741 465 1142 497">▪ Telephoto: $f/2.8$ aperture <li data-bbox="741 509 1290 541">▪ Optical zoom; digital zoom up to 10x <li data-bbox="741 553 973 585">▪ Portrait mode <li data-bbox="741 597 1142 629">▪ Optical image stabilization <p>The Accused Product includes a processor that processes image data from the telephoto camera, <i>e.g.</i>, the Apple A10 Fusion APL1W24 SoC + Samsung 3 GB LPDDR4 RAM. <i>See, e.g.</i>, https://www.ifixit.com/Teardown/iPhone+7+Plus+Teardown/67384 (indicating the Apple A10 processor). <i>See also, e.g.</i>, http://appleinsider.com/articles/16/09/23/apples-iphone-7-camera-delivers-nice-slice-of-enhancements-but-iphone-7-plus-takes-the-cake (“Apple’s A10 Fusion chip incorporates an enhanced custom Image Signal Processor that now performs over 100 billion calculations on every photograph it takes.”).</p> |
| 1.[c] | a Tele imaging section that includes a fixed focal length Tele lens with a Tele FOV that is narrower than the Wide FOV, a Tele sensor and a Tele ISP, the Tele imaging section operative to provide | <p>The Accused Product includes a zoom digital camera which includes a telephoto camera, which, <i>e.g.</i>, Apple has described as being a 56 mm equivalent lens, i.e., with a field of view that will be narrower than the field of view of the wide-angle lens (which is equivalent to 28 mm) given a similar image sensor size.</p> <p><i>See, e.g.</i>, Apple iPhone 7+ Specifications, https://support.apple.com/kb/SP744.</p> |

| Claim | Claim Element | Accused Product |
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| | Tele image data of the object or scene; and | <p>Camera</p> <ul style="list-style-type: none"> ▪ 12MP wide-angle and telephoto cameras ▪ Wide-angle: $f/1.8$ aperture ▪ Telephoto: $f/2.8$ aperture ▪ Optical zoom; digital zoom up to 10x ▪ Portrait mode ▪ Optical image stabilization <p>This telephoto camera includes a sensor. <i>See, e.g., id.</i>:</p> <p>Camera</p> <ul style="list-style-type: none"> ▪ 12MP wide-angle and telephoto cameras ▪ Wide-angle: $f/1.8$ aperture ▪ Telephoto: $f/2.8$ aperture ▪ Optical zoom; digital zoom up to 10x ▪ Portrait mode ▪ Optical image stabilization <p>The Accused Product includes a processor that processes image data from the telephoto camera, <i>e.g.</i>, the Apple A10 Fusion APL1W24 SoC + Samsung 3 GB LPDDR4 RAM. <i>See, e.g.</i>, https://www.ifixit.com/Teardown/iPhone+7+Plus+Teardown/67384 (indicating the Apple A10 processor). <i>See also, e.g.</i>, http://appleinsider.com/articles/16/09/23/apples-iphone-7-camera-delivers-nice-slice-of-enhancements-but-iphone-7-plus-takes-the-cake (“Apple’s A10 Fusion chip incorporates an enhanced custom Image Signal Processor that now performs over 100 billion calculations on every photograph it takes.”).</p> |

| Claim | Claim Element | Accused Product |
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| 1.[d] | c) a camera controller operatively coupled to the Wide and Tele imaging sections, the camera controller configured to combine in still mode at least some of the Wide and Tele image data to provide a fused output image of the object or scene from a particular point of view and | <p>The Accused Product includes a camera controller, <i>e.g.</i>, processes or systems running on the Apple A10 system-on-a-chip (SoC) processor shown above, which is configured to combine in still mode at least some of the Wide and Tele image data to provide a fused output image of the object or scene from a particular point of view.</p> <p><i>See, e.g.,</i> “What's new in Camera Capture on iPhone 7 and iPhone 7 Plus,” https://forums.developer.apple.com/thread/63347 (Authored by “Apple Staff”).</p> <p><i>iPhone 7 Plus Dual Cameras</i></p> <p>iPhone 7 Plus features two 12 megapixel cameras on the back: one wide-angle (28mm, f/1.8) and one telephoto (56 mm, f/2.8). These two cameras can be discovered and used independently, or as a single virtual camera that automatically switches between physical cameras for zoom — in effect turning two prime lens cameras into a single zoom lens camera. With a proliferation of cameras on iPhone 7 Plus and the need to differentiate between them, AVCaptureDevice now exposes a readonly – deviceType property, which can be one of the following enumerated values:</p> <p>...</p> <p>The Dual camera's defining feature is its ability to smoothly transition between wide and tele cameras, acting like a single lens camera with optical zoom at 2x. Zoom operations are performed on the Dual camera using the familiar –[AVCaptureDevice setVideoZoomFactor:] or – [AVCaptureDevice rampToVideoZoomFactor:withRate:] APIs. Video zoom factor is always expressed in terms of the wide-angle camera, even when</p> |

| Claim | Claim Element | Accused Product |
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| | | <p>only the telephoto camera is in use. When zoomed, the Dual camera intelligently fuses images from the wide-angle and telephoto cameras to improve image quality. This process is transparent to the user and happens automatically when you take pictures using <code>AVCapturePhotoOutput</code> or <code>AVCaptureStillImageOutput</code>. The point at which the cross over from wide-angle to telephoto happens depends on a variety of factors including current focus position, current zoom factor, and current exposure. Because the Dual camera can change at unpredictable times between formats with different ISO ranges and focal lengths, certain <code>AVCaptureDevice</code> manual control APIs are not supported, as the preservation of locked or custom control values would result in visually jarring jumps in focus position, exposure, or white balance when changing between cameras. When using the Dual camera <code>AVCaptureDevice</code>, the following manual control API restrictions apply:</p> |

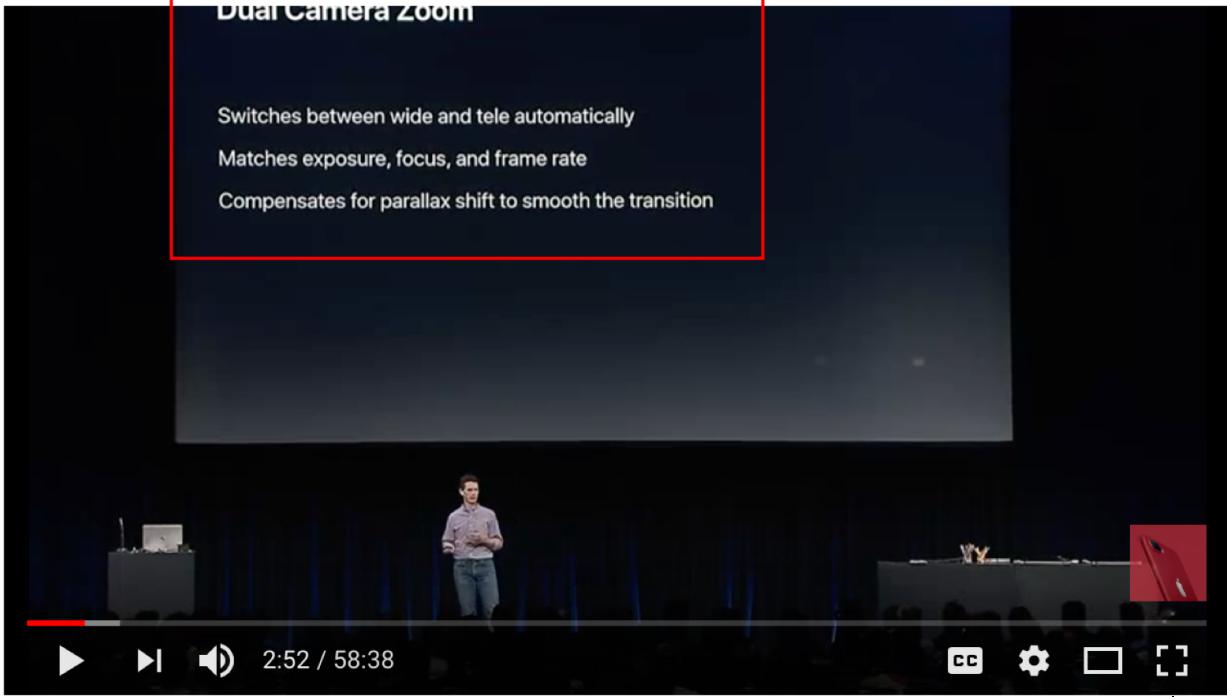
| Claim | Claim Element | Accused Product |
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| | | <p><i>See, e.g., “AVCaptureDeviceTypeBuiltInDualCamera,”</i> <u>https://developer.apple.com/documentation/avfoundation/avcapturedevicetypebuiltindualcamera</u></p> <h2 data-bbox="720 425 1860 491">AVCaptureDeviceTypeBuiltInDualCamera</h2> <p>A combination of wide-angle and telephoto cameras that creates a capture device capable of photo, video, and depth capture, with enhanced zoom and dual-image capture features.</p> <p><i>amera.</i></p> <p><i>See also, e.g., “AVCaptureDeviceTypeBuiltInDuoCamera,”</i> <u>https://developer.apple.com/documentation/avfoundation/avcapturedevicetypebuiltinduocamera</u>.</p> <p><i>See also, e.g., the operations executed by the referenced APIs, “AVCapturePhotoOutput” and “AVCaptureStillImageOutput” when the Accused Product takes a still photo with its rear dual-aperture camera.</i></p> |
| 1.[d] | to provide without fusion continuous zoom video mode output images of the object or scene, each output image having a | <p>The Accused Product includes a camera controller, <i>e.g.</i>, processes running on the Apple A10 processor identified above for element 1.[c], which is configured or programmed to provide without fusion continuous zoom video mode output images of the object or scene.</p> <p>For example, the video output at various zoom factors does not demonstrate fusion. Rather, for zoom factors less than 2, the observable input is only from the wide-angle camera (<i>e.g.</i>, covering the telephoto camera does not change image quality), and for zoom</p> |

| Claim | Claim Element | Accused Product |
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| | respective output resolution; | <p>factors greater than 2, the output is only from the telephoto camera (<i>e.g.</i>, covering the wide-angle camera does not change image quality).</p> <p><i>See, e.g.</i>, “What’s new in Camera Capture on iPhone 7 and iPhone 7 Plus,” https://forums.developer.apple.com/thread/63347 (Authored by “Apple Staff”).</p> <p><i>iPhone 7 Plus Dual Cameras</i></p> <p>iPhone 7 Plus features two 12 megapixel cameras on the back: one wide-angle (28mm, f/1.8) and one telephoto (56 mm, f/2.8). These two cameras can be discovered and used independently, or as a single virtual camera that automatically switches between physical cameras for zoom — in effect turning two prime lens cameras into a single zoom lens camera.</p> <p>...</p> <p>The Dual camera’s defining feature is its ability to smoothly transition between wide and tele cameras, acting like a single lens camera with optical zoom at 2x. Zoom operations are performed on the Dual camera using the familiar –[AVCaptureDevice setVideoZoomFactor:] or –[AVCaptureDevice rampToVideoZoomFactor:withRate:] APIs. . . . Because the Dual camera can change at unpredictable times between formats with different ISO ranges and focal lengths, certain AVCaptureDevice manual control APIs are not supported, as the preservation of locked or custom control values would result in visually jarring jumps in focus position, exposure, or white balance when changing between cameras. When using the Dual camera AVCaptureDevice, the following manual control API restrictions apply:</p> |

| Claim | Claim Element | Accused Product |
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| 1.[e] | wherein the video output images are provided with a smooth transition when switching between a lower zoom factor (ZF) value and a higher ZF value or vice versa, | <p>The Accused Product includes a camera controller, e.g., processes running on the Apple A10 processor shown above, which is configured to provide video output images during continuous zoom with a smooth transition when switching between a lower zoom factor (ZF) value and a higher ZF value or vice versa.</p> <p><i>See, e.g., “What’s new in Camera Capture on iPhone 7 and iPhone 7 Plus,”</i> https://forums.developer.apple.com/thread/63347 (Authored by “Apple Staff”).</p> <p><i>iPhone 7 Plus Dual Cameras</i></p> <p>iPhone 7 Plus features two 12 megapixel cameras on the back: one wide-angle (28mm, f/1.8) and one telephoto (56 mm, f/2.8). These two cameras can be discovered and used independently, or as a single virtual camera that automatically switches between physical cameras for zoom — in effect turning two prime lens cameras into a single zoom lens camera. With a proliferation of cameras on iPhone 7 Plus and the need to differentiate between them, AVCaptureDevice now exposes a readonly – deviceType property, which can be one of the following enumerated values:</p> <ul style="list-style-type: none"> AVCaptureDeviceTypeBuiltInMicrophone – an audio capture device (microphone) AVCaptureDeviceTypeBuiltInWideAngleCamera – A wide angle camera. All iOS 10 supported devices present front and back cameras as built-in wide angle cameras (except for the new telephoto camera on iPhone 7 Plus). AVCaptureDeviceTypeBuiltInTelephotoCamera – The new 56 mm telephoto rear-facing camera on iPhone 7 Plus. |

| Claim | Claim Element | Accused Product |
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| | | <p><code>AVCaptureDeviceTypeBuiltInDuoCamera</code> – A virtual camera on iPhone 7 Plus that switches between wide-angle and telephoto seamlessly for a smooth zoom.</p> <p>...</p> <p>The Dual camera's defining feature is its ability to smoothly transition between wide and tele cameras, acting like a single lens camera with optical zoom at 2x. Zoom operations are performed on the Dual camera using the familiar <code>-[AVCaptureDevice setVideoZoomFactor:]</code> or <code>-[AVCaptureDevice rampToVideoZoomFactor:withRate:]</code> APIs. . . . Because the Dual camera can change at unpredictable times between formats with different ISO ranges and focal lengths, certain <code>AVCaptureDevice</code> manual control APIs are not supported, as the preservation of locked or custom control values would result in visually jarring jumps in focus position, exposure, or white balance when changing between cameras.</p> <p>Apple provides API(s) to control programming that allows a smooth transition to occur. <i>See, e.g., “rampToVideoZoomFactor:withRate:,”</i> <u>https://developer.apple.com/documentation/avfoundation/avcapturedevice/1624614-rampstovideozoomfactor</u>.</p> |

| Claim | Claim Element | Accused Product |
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| | | <p>Instance Method</p> <p>rampToVideoZoomFactor:withRate:</p> <p>Begins a smooth transition from the current zoom factor to another.</p> <p><i>See also, e.g., “videoZoomFactor,”</i></p> <p><u>https://developer.apple.com/documentation/avfoundation/avcapturedevice/1624611-videozoomfactor</u>.</p> <p>Instance Property</p> <p>videoZoomFactor</p> <p>A value that controls the cropping and enlargement of images captured by the device.</p> <p><i>See, e.g., “WWDC 2017 Video Session – Capturing Depth in iPhone Photography,” Brad Ford (Apple),</i> <u>https://www.youtube.com/watch?v=kbsDyTf7k2I</u> at 2:25.</p> |

| Claim | Claim Element | Accused Product |
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| | |  <p data-bbox="903 241 1178 269">Dual Camera zoom</p> <p data-bbox="903 344 1389 453">Switches between wide and tele automatically Matches exposure, focus, and frame rate Compensates for parallax shift to smooth the transition</p> <p data-bbox="756 882 1094 910">▶ ▶! 🔍 2:52 / 58:38</p> <p data-bbox="1643 882 1896 910">CC ⚙️ 🎞 []</p> <p data-bbox="692 975 1799 1085"><i>See also, e.g., “iPhone 7 Plus Dual Camera Test (Zoom and Quality),”</i> https://www.youtube.com/watch?v=jqra8r30IUs (showing the transition during zoom from the wide-angle camera to telephoto camera).</p> |

| Claim | Claim Element | Accused Product |
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| | | <p><i>See, e.g., “AVCaptureDeviceTypeBuiltInDualCamera,”</i> <u>https://developer.apple.com/documentation/avfoundation/avcapturedevicetypebuiltindual</u></p> <p>Global Variable</p> <h2 data-bbox="713 425 1864 491">AVCaptureDeviceTypeBuiltInDualCamera</h2> <p>A combination of wide-angle and telephoto cameras that creates a capture device capable of photo, video, and depth capture, with enhanced zoom and dual-image capture features.</p> <p><u>amera.</u></p> <p><i>See also, e.g., “AVCaptureDeviceTypeBuiltInDuoCamera,”</i> <u>https://developer.apple.com/documentation/avfoundation/avcapturedevicetypebuiltinduo</u> <u>amera.</u></p> |
| 1.[f] | wherein at the lower ZF value the output resolution is determined by the Wide sensor, and wherein at the higher ZF value the output resolution is determined by the Tele sensor. | As disclosed above, <i>e.g.</i> , for elements 1.[d]-[e], The camera controller for the rear dual-aperture camera of the Accused Product (<i>e.g.</i> , as identified above for element 1.[d] has been configured or programmed such that at higher zoom information is obtained from the telephoto camera sensor, and at lower zoom factors where the telephoto camera with its narrower field of view cannot provide the complete field of view, information is obtained from the wide-angle camera sensor. For example, the transition between wide and tele cameras in video mode includes matching the position of the output image before and after the transition (upward zoom or downward zoom) allowing for continuous operation. |
| 2. | The camera of claim 1, wherein the controller | The camera controller for the rear dual-aperture camera of the Accused Product (<i>e.g.</i> , as identified above for element 1.[d] has been configured or programmed such that there is a |

| Claim | Claim Element | Accused Product |
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| | includes a user control module for receiving user inputs and a sensor control module for configuring each sensor to acquire the Wide and Tele image data based on the user inputs. | <p>user control module for receiving user inputs and a sensor control module for configuring each sensor to acquire the Wide and Tele image data based on the user inputs.</p> <p>The user inputs are obtained through graphically user interface (GUI) controls. By way of example, one such user control is the slider wheel with zoom level indicator on the GUI of the Accused Product. <i>See, e.g.</i>,</p> |

| Claim | Claim Element | Accused Product |
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| | |  <p>When the indicated “1X” button is touched and held, the zoom can be increased or decreased by swiping right or left.</p> |

| Claim | Claim Element | Accused Product |
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| | |  <p data-bbox="677 1122 1550 1192"><i>See, e.g., “How to Use Zoom Feature on iPhone 7 Plus Camera,”</i> https://www.igeeeksblog.com/how-to-use-zoom-on-iphone-7-plus/.</p> <p data-bbox="677 1230 1818 1339">The user interface control may also adjust the zoom level by using a “pinch to zoom” feature in which a user touches the screen and applies a “pinching” gesture to zoom the image in or out.</p> |

| Claim | Claim Element | Accused Product |
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| | | At lower zoom factors, the telephoto camera, which has a relatively narrow field of view, cannot capture the whole image, so to provide full resolution across the range of the image, the camera controller system on the processor is configured or programmed such that image data is obtained from the sensor of the wide-angle camera. At higher zoom factors, where the telephoto camera the camera controller system on the processor is configured or programmed such that image data is obtained from the sensor of the telephoto camera |
| 3. | The camera of claim 2, wherein the user inputs include a zoom factor, a camera mode and a region of interest (ROI). | <p>The camera controller for the rear dual-aperture camera of the Accused Product (<i>e.g.</i>, as identified above for element 1.[d] has been configured or programmed such that the user inputs to the user control module (<i>i.e.</i>, as identified above in the mapping for Claim 2) include a zoom factor, a camera mode and a region of interest (ROI).</p> <p>For example, as shown above in the mapping for Claim 2, the user can input through GUI controls the zoom factor, select a region of interest (ROI), <i>i.e.</i>, an area to focus on, and select either still or video camera modes (<i>i.e.</i>, by selecting “video” or “photo” modes through the GUI).</p> |
| 4. | The camera of claim 2, wherein the sensor control module has a setting that depends on the Wide and Tele fields of view and on a sensor oversampling ratio, the setting used in the configuration of each sensor. | <p>The camera controller for the rear dual-aperture camera of the Accused Product (<i>e.g.</i>, as identified above for element 1.[d]) is configured such that the sensor control module has a setting that depends on the fields of view of the wide-angle and telephoto cameras and on an oversampling ratio, <i>i.e.</i>, the number of sensor in-line pixels divided by the number of output frame image in-line pixels.</p> <p>Depending on the size of the output field that is selected, the zoom ratio may be higher than the relative fields of view, which is in the Accused Products is 2.0 (<i>see</i> elements 1.[b] and 1.[c] above), <i>i.e.</i>, the transition between cameras would occur at a zoom ratio higher than that optical zoom ratio, 2.0.</p> <p><i>See, e.g.</i>, “What's new in Camera Capture on iPhone 7 and iPhone 7 Plus,” https://forums.developer.apple.com/thread/63347 (Authored by “Apple Staff”) (“The</p> |

| Claim | Claim Element | Accused Product |
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| | | <p>point at which the cross over from wide-angle to telephoto happens depends on a variety of factors including current focus position, current zoom factor, and current exposure. Because the Dual camera can change at unpredictable times between formats with different ISO ranges and focal lengths, certain AVCaptureDevice manual control APIs are not supported, as the preservation of locked or custom control values would result in visually jarring jumps in focus position, exposure, or white balance when changing between cameras.”)</p> <p>Apple’s APIs provide an interface to execute the configuration of the sensor control module that allows for this transition point to be variable as described in the aforementioned. <i>See also, e.g., id.</i> (“Zoom operations are performed on the Dual camera using the familiar -[AVCaptureDevice setVideoZoomFactor:] or -[AVCaptureDevice rampToVideoZoomFactor:withRate:] APIs.”)</p> |
| 5. | <p>The camera of claim 4, wherein the Wide and Tele FOVs and the sensor oversampling ratio satisfy the condition</p> $0.8 * PL_{Wide} / PL_{video} < \tan(FOV_{Wide}) / \tan(FOV_{Tele}) < 1.2 * PL_{Wide} / PL_{video}$ <p>wherein PL_{Wide} is an in-line number of Wide sensor pixels and wherein PL_{video} is an in-line number of output video format pixels.</p> | <p>The camera controller for the rear dual-aperture camera of the Accused Product (<i>e.g.</i>, as identified above for element 1.[d]) is configured such that the oversampling ratio identified above for Claim 4 and the fields of view of the wide-angle and telephoto cameras identified for Claim elements 1.[b] and 1.[c] above satisfy the condition $0.8 * PL_{Wide} / PL_{video} < \tan(FOV_{Wide}) / \tan(FOV_{Tele}) < 1.2 * PL_{Wide} / PL_{video}$, wherein PL_{Wide} is an in-line number of Wide sensor pixels and wherein PL_{video} is an in-line number of output video format pixels.</p> <p>For example, the Accused Product supports 1080p video mode. <i>See, e.g.,</i> Apple iPhone 7+ Specifications, https://support.apple.com/kb/SP744. In that mode, PL_{Wide} is 4000 pixels, and PL_{video} is 1920 pixels. Based on the fields of view of the wide-angle and telephoto cameras, the Accused Product has $\tan(FOV_{Wide}) = 0.77$ and $\tan(FOV_{Tele}) = 0.38$. Accordingly, in 1080p video mode, the said ratio is satisfied.</p> |

| Claim | Claim Element | Accused Product |
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| 6. | The camera of claim 1, wherein the Tele lens includes a ratio of total length (TTL)/effective focal length (EFL) smaller than 1. | <p>In the dual-aperture camera of the Accused Product, the telephoto camera contains a lens assembly within a total track length (i.e. TTL) and provides an effective focal length (i.e. EFL) such that TTL divided by EFL is less than 1.</p> <p><i>See, e.g.,</i> the mapping for Claim element 1.[d] of the '032 patent in Exhibit B.</p> |
| 7. | The camera of claim 6, wherein each lens includes five lens elements. | <p>The Accused Product contains a rear dual-aperture camera, which Apple identifies as including a “telephoto camera” and a “wide-angle camera.” <i>See, e.g.,</i> element 1.[a]. The lens assembly of the telephoto camera of the Accused Product contains five individual lenses, and the lens assembly of the wide-angle camera of the Accused Product contains six individual lenses.</p> |
| 10. | The camera of claim 1, wherein the camera controller configuration to provide video output images with a smooth transition when switching between a lower ZF value and a higher ZF value or vice versa includes a configuration that uses information either from the Wide sensor or from the Tele sensor. | <p>The camera controller for the rear dual-aperture camera of the Accused Product (<i>e.g.</i>, as identified above for element 1.[d] has been configured or programmed such that it uses information (i.e. image data) either from the Wide sensor or from the Tele sensor. For example, at higher zoom information is obtained from the telephoto camera sensor, and at lower zoom factors where the telephoto camera with its narrower field of view cannot provide the complete field of view, information is obtained from the wide-angle camera sensor.</p> |
| 12.[a] | A method for obtaining zoom images of an object or scene in both still and video modes using a digital camera, | <p>To the extent that the preamble is limiting, Apple and/or its customers or end-users of the Accused Product practice a method to obtain zoom images of an object in both still and video modes using a digital camera of the Accused Product, in particular, the rear dual-aperture camera of the Accused Product that includes both a wide-angle and a telephoto camera lens assembly.</p> |